

# CYBERSECURITY, ASSOCIATE IN APPLIED SCIENCE



## COMPUTER AND INFORMATION TECHNOLOGY

### Program Requirements

Program Prerequisites: None

Code	Title	Credits	Semester
<b>Required Courses</b>			
BPC270	A+ Exam Prep: Operating System Configuration and Support	3	
or MST150EI	Configuring Windows 8		
or MST150SV	Microsoft Windows 7 Configuration		
or MST150WT	Installing and Configuring Microsoft Windows 10		
MST150++ required for Cloud System Administration specialization and Critical Infrastructure specialization			
CIS105	Survey of Computer Information Systems	3	
CIS111	Ethics in Information Technology	3	
or ITS120	Legal, Ethical and Regulatory Issues		
CIS126DL	Linux Operating System	3	
or CIS126RH	Red Hat System Administration I		
CIS156	Python Programming: Level I	3	
CIS190	Introduction to Networking	3-4	
or CNT140AB	Introduction to Networks		
CNT140AB required for Cisco Network Administration and Security specialization and Critical Infrastructure specialization			
CIS270	Essentials of Network and Information Security	3	
or ITS110	Information Security Fundamentals		

ITS110 required for Cyber Operations specialization; CIS270 required for Critical Infrastructure specialization

FYE101	Introduction to College, Career and Personal Success	1-3	
or FYE103	Exploration of College, Career and Personal Success		
ITS240	Ethical Hacking and Network Defense	3	

#### Restricted Electives

Students must complete 12-18 credits from the following list of courses.

Courses that are required for a specialization in Cyber Operations, Linux System Administration, Cloud System Administration, Cisco Network Administration and Security, Cyber Engineering, and/or Critical Infrastructure are noted. Courses cannot be repeated for credit.

#### Specialization I: Cyber Operations (17 Credits)

BPC170	A+ Exam Prep: Computer Hardware Configuration and Support		
CIS238DL	Linux System Administration		
or CIS238RH	Red Hat System Administration II		
CIS290AC	Computer Information Systems Internship		
or CIS298AC	Special Projects		
ITS291	Computer Forensics Foundations		
ITS292	Advanced Computer Forensics		

#### Specialization II: Linux System Administration (15 Credits)

CIS238DL	Linux System Administration		
or CIS238RH	Red Hat System Administration II		
CIS239DL	Linux Shell Scripting		
CIS240DL	Linux Network Administration		
or CIS240RH	Red Hat System Administration III		
CIS271DL	Linux Security		

	or CIS271RHRed Hat System Administration IV	_____
CIS275DL	Linux Capstone	_____
<i>Specialization III: Cloud System Administration (15-16 Credits)</i>		
BPC274	Advanced Server Computer Maintenance: Server+ Prep	_____
CIS121AH	Microsoft PowerShell/Command Line Operations	_____
CIS239DL	Linux Shell Scripting	_____
MST160	Azure Administrator	_____
	or CLD110 Amazon Web Services Cloud Foundations	_____
MST260	Microsoft Azure Cloud Development and Operations	_____
	or CLD120 Amazon Web Services Cloud Architect Associate	_____
<i>Specialization IV: Cisco Network Administration and Security (12 Credits)</i>		
CNT150AB	Switching, Routing, and Wireless Essentials	_____
CNT160AB	Enterprise Networking, Security, and Automation	_____
CNT202	Cisco Secure Firewall Appliance Configuration	_____
	or CNT205 Cisco Certified Network Associate Security	_____
<i>Specialization V: Cyber Engineering (18 Credits)</i>		
CIS162	C Programming I	_____
	or CIS162ABC++: Level I	_____
	or CIS162ACVisual C++: Level I	_____
	or CIS162ADC#: Level I	_____
	or CIS162RSRust Programming	_____
Students intending to transfer to U of A South should take CIS162 C Programming		
CIS227	Assembly Language	_____
CIS238DL	Linux System Administration	_____
	or CIS238RHRed Hat System Administration II	_____

CIS250	Management of Information Systems	_____
CIS262AB	C++: Level II	_____
	or CIS262ADC# Level II	_____
<i>Specialization VI: Critical Infrastructure (16 Credits)</i>		
CIS143	Introduction to Critical Infrastructure Protection	_____
CIS201	Introduction to Operational Technology	_____
CIS202	Introduction to Smart Grid Security	_____
CIS203	Principles of the Risk Management Framework	_____
CNT150AB	Switching, Routing, and Wireless Essentials	_____
<b>General Electives</b>		
Select additional courses 100-level or higher to complete the minimum total program credits required for this degree. It is recommended to select from the Restricted Elective options. Consult with a faculty advisor, program director, and/or academic advisor to identify coursework that best aligns with academic and professional goals.		0-3
<b>General Education</b>		
<b>Core</b>		
<i>First-Year Composition</i>		
ENG101	First-Year Composition	3
	or ENG107 First-Year Composition for ESL	_____
ENG102	First-Year Composition	3
	or ENG108 First-Year Composition for ESL	_____
<i>Oral Communication</i>		
Select one of the following:		3
COM100	Introduction to Human Communication <sup>7</sup>	_____
COM110	Interpersonal Communication	_____
COM225	Public Speaking	_____
COM230	Small Group Communication	_____

COM100 required for students intending to transfer to ASU West to earn a Bachelor of Science in Applied Computing Cybersecurity.		_____
<i>Critical Reading</i>		_____
Select one of the following:	0-3	_____
CRE101	College Critical Reading and Critical Thinking	_____
Or equivalent as indicated by assessment		_____
<i>Mathematics</i>		_____
Any approved general education course(s) in the Mathematics area	3-6	_____
<b>Distribution</b>		_____
<i>Humanities, Arts and Design</i>		_____
Any approved general education course(s) from the Humanities, Arts and Design area	3	_____
<i>Social and Behavioral Sciences</i>		_____
Any approved general education course(s) in the Social and Behavioral Sciences area	3	_____
<i>Natural Sciences</i>		_____
Any approved general education course(s) in the Natural Sciences area	4	_____
Total Credits	62-77	_____